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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/627,472	07/25/2003	Paul G. Kennedy	Pen-12	3223
20808	7590	12/27/2005		
BROWN & MICHAELS, PC 400 M & T BANK BUILDING 118 NORTH TIOGA ST ITHACA, NY 14850			EXAMINER GATES, ERIC ANDREW	
			ART UNIT	PAPER NUMBER
			3722	

DATE MAILED: 12/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	10/627,472		KENNEDY, PAUL G.	
	<b>Examiner</b>		<b>Art Unit</b>	
	Eric A. Gates		3722	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 17 October 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) 9 and 10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Response to Amendment*

1. This office action is in response to applicant's amendment filed on 17 October 2005.

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-2 and 4-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nejati (U.S. Patent 5,664,457) in view of Arnold (U.S. Patent 1, 731,036).
3. Regarding claims 1-2 and 4-8, Nejati discloses a method for forming threaded pitches on a gear blank 370 with a surface for threading, whereby a tap 374 is mounted on and actuated by a milling machine head 378, and turning of the tap causes threads to be cut on the gear blank surface. Nejati further discloses the gear blank to be passively mounted on a jig 377, whereby only the rotation of the tap causes the blank to rotate and thereby feed itself into the tap. Nejati also discloses that this method can be used for forming gears of less than 360° rotation, i.e., a partial-turn surface. Examiner takes Official Notice that it is well known to use quarter-turn surfaces in industry for the purpose of operations requiring 90° degrees of rotation. It would have been obvious to

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one having ordinary skill in the art to use the method of Nejati to create gears with quarter-turn surfaces in order to meet operational requirements. Nejati does not disclose a plurality of blanks, or a set of two blanks, facing each other for engagement with the tap.

4. Arnold teaches the process of placing blanks  $d^3$  facing each other to thereby be simultaneously cut by one tool for the purpose of increasing manufacturing production. Therefore, it would have been obvious to one having ordinary skill in the art to have arranged a plurality of Nejati's blanks facing each other for engagement with the tap in order to increase manufacturing production.

5. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nejati in view of Arnold as applied to claim 1 above, and further in view of Miyauch (U.S. Patent 5,347,760). The modified process of Nejati discloses the invention substantially as claimed except that coolant is not provided to the blanks. Miyauch discloses the use of grinding oil as a coolant while machining a gear blank W for the purpose of reducing heat and friction. Therefore it would have been obvious to one having ordinary skill in the art to modify the method of Nejati with the coolant of Miyauch in order to prevent excessive heat build-up.

### ***Response to Arguments***

6. Applicant's arguments filed 17 October 2005 have been fully considered but they are not persuasive.

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7. Applicant argues that Nejati's teaching of using a horizontal movement of jig 377 and the gear blank 370 as crank 380 is turned would make it impossible to engage more than one blank with the tap at a time. However, Nejati states that the jig can be moved in this manner, not requiring movement of the gear blank in this way, and as such does not teach away from the blank movement of Arnold, which does allow for engagement of two blanks with the tap at the same time. Therefore the combination of the teachings of Nejati and Arnold does allow for machining more than one blank at a time using a tap.

8. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

9. Applicant argues that Arnold is a milling operation and not a tapping operation. However, since both operations function to impart threads on a work-piece blank, both operations are therefore structurally equivalent.

10. Applicant argues that Arnold does not teach or suggest a plurality of blanks wherein each blank is free from actuation other than forces exerted by the tap as claimed in applicant's independent claim 1. However, the combination of the teachings

of Nejati and Arnold does teach this, as described above. For this and the reasons supplied above, the grounds of rejection are deemed proper.

### ***Conclusion***

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric A. Gates whose telephone number is 571-272-5498. The examiner can normally be reached on Monday-Thursday 7:45-5:15 & alt Fridays 7:45-4:15.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Boyer Ashley can be reached on 571-272-4502. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

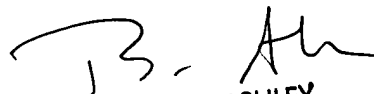
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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



EAG  
12 December 2005

Eric A. Gates  
Patent Examiner  
Art Unit 3722



BOYER D. ASHLEY  
PRIMARY EXAMINER